

**PORCINE SPINAL CORD CELLS AND THEIR USE IN SPINAL CORD REPAIR**Abstract

5 Porcine spinal cord cells and methods for using the cells to treat spinal cord damage  
due to neurodegeneration resulting from spinal cord injury and neurodegenerative disorders  
are described. The porcine spinal cord cells are preferably embryonic spinal cord cells  
obtained from select gestational days. The porcine spinal cord cells can be modified to be  
suitable for transplantation into a xenogeneic subject, such as a human. For example, the  
porcine spinal cord cells can be modified such that an antigen (e.g., an MHC class I antigen)  
10 on the cell surface which is capable of stimulating an immune response against the cell in a  
xenogeneic subject is altered (e.g., by contact with an anti-MHC class I antibody, or a  
fragment or derivative thereof) to inhibit rejection of the cell when introduced into the  
subject. In one embodiment, the porcine spinal cord cells are obtained from a pig which is  
essentially free from organisms or substances which are capable of transmitting infection or  
15 disease to the recipient subject. The porcine spinal cord cells of the present invention can be  
used to treat spinal cord damage due to neurodegeneration in the spinal cord of a xenogeneic  
subject (e.g., a human having spinal cord injury, amyotrophic lateral sclerosis or multiple  
sclerosis) by introducing the cells into the spinal cord of the subject.